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**BEST AVAILABLE COPY****REMARKS**

Claims 1-22 were pending in the present Application. Claims 2 and 14 have been canceled, Claim 22 has been withdrawn owing to a species election, and Claims 1, 12 and 21 have been amended, leaving Claims 1, 3-13, and 15-21 for consideration upon entry of the present Amendment. No new matter has been introduced by way of amendment. Specifically, support for Claim 1 can be found, at least, in Claim 2, Figure 1, and paragraph [0020] as originally filed. Support for Claim 12 can be found, at least, in Claim 14, Figure 1, and paragraph [0020] as originally filed. Support for Claim 21 can be found, at least, in Figure 1, and paragraph [0020] as originally filed.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Before substantively addressing the rejections to the pending claims, Applicants respectfully note that Claim 22 was previously withdrawn as a result of an election requirement; therefore, any rejection of Claim 22 has been rendered moot. Applicants respectfully request withdrawal of the rejection applied to Claim 22 under 35 U.S.C. § 103(a).

First Claim Rejection Under 35 U.S.C. § 103(a)

Claims 1-5, 8, 10-14, 17, 19, 20, and 21 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 2,856,179 to Hogan (hereinafter "Hogan") in view of U.S. Patent No. 5,992,582 to Lou et al. (hereinafter, "Lou"), and further in view of U.S. Patent No. 6,394,239 to Carlson (hereinafter "Carlson"). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a *prima facie* case of obviousness requires, in part, that all elements of the invention be disclosed in the prior art. *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

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Applicants contend that a *prima facie* case of obviousness has not been established because the cited references fail to teach or suggest all elements of Applicants' independent Claims 1, 12, and 21. In particular, Applicants' claimed feature of at least one alignment bearing disposed at the free end of the planar surface of the at least one rotor to maintain clearances between the at least one rotor and the at least one stator and to carry thrust loads has not been mentioned or suggested by the cited references.

In making the rejection, the Examiner has cited the embodiment represented by Figure 5 of Hogan as being the most relevant. The Examiner's attention is kindly directed to the text of Hogan regarding the absorber of Figure 5, the relevant portion of which has been reproduced for convenience as shown below.

Another form of this invention is shown in Figure 5 wherein the viscosity of a liquid, preferably oil, is utilized to resist the movement of the shock absorber.

Here again a housing 70 is provided with a cavity into which a plunger 71 projects. The plunger 71 is provided with a grooved screw portion 72 having a helical groove 73 which cooperates with annular grooves 74 in a nut assembly 76 to define the usual ball cavities in which balls 77 are positioned. Here again a cage 78 is utilized to properly position the balls at the intersection of the grooves 73 and 74. Antifriction thrust bearings 79 axially locate the nut assembly 76 within the housing 70 without restraining the nut against rotation relative thereto. Fluid seals 31 engage the plunger 71 on either side of the screw portion 72 and in cooperation with the housing 70 retain oil in the area of the screw and nut. The nut assembly 76 is provided with a series of radially extending fins 82 interspaced with a similar series of radially extending fins 83 mounted on the housing 70. As the nut assembly 76 is rotated relative to the housing 70, the fins 82 rotate with the nut relative to the fins 83 which are fixed on the housing and provide a large surface subject to the viscous resistance of the oil within the cavity.

(Hogan; Column 4, line 74 through Column 5, line 21; emphasis added)

As stated in the text, and illustrated in Figure 5 of Hogan, Hogan discloses antifriction thrust bearings. Hogan makes no reference of the use of any other type of bearing. Applicants disclose alignment bearings. Alignment bearings are different, both in function and form, than the antifriction thrust bearings of Hogan. In Hogan, the antifriction thrust bearings are positioned

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between the housing and the nut assembly to "axially locate the nut assembly within the housing ..." (Col. 5, lines 9-10). Applicants' alignment bearings are located between each rotor (i.e., the "fin 82" of Hogan) and stator (i.e., the "fin 83" of Hogan) to maintain clearances between the rotor and stator, as well as to carry the thrust loads. In view of the foregoing, Hogan fails to disclose or suggest Applicants' claimed alignment bearings.

Turning now to Lou, Applicants contend that Lou also fails to disclose or suggest, Applicants' feature of at least one alignment bearing disposed on the free end of the planar surface of the at least one rotor to maintain clearances between the at least one rotor and the at least one stator and to carry thrust loads. The Examiner's attention is kindly directed to the text of Lou regarding the damper of Figure 1, the relevant portion of which has been reproduced for convenience as shown below.

The ER damper 3 includes a stator 29 and a rotor 26, which are coaxially arranged and can rotate relative to each other. Both the stator 29 and the rotor 26 are made of a conductive material. The rotor 26 are mechanically supported within the stator 29 by a pair of bearings 37 and 28 and are electrically insulated from the stator 29 by three insulators 35, 36, and 27. Relative axial movement between the rotor 26 and the stator 29 are not allowed by the bearings 37 and 28.

(Lou, Column 3, lines 37-45, emphasis added)

As stated in the text, Lou discloses a pair of bearings located at each terminal end of the damper housing. The rotor 26 and stator 29 of Lou is not the same as Applicants' claimed rotor and stator. The equivalent of Applicants' rotors and stators are the rotor-electrodes 21 and stator-electrodes 22, as depicted in Lou Figure 1, respectively. The equivalent of the stator and rotor of Lou are described in the present application as the cylinder housing 14 and the thrust shaft 12, respectively. Lou does not disclose, in the Specification, nor in the Figures, bearings located between the alternating rotor and stator electrodes. Further, Lou does not disclose alignment bearings. A pair of bearings located between the housing and rotor assembly is not the same thing as at least one alignment bearing disposed on the free end of the planar surface of the at least one

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rotor to maintain clearances and carry thrust loads. Accordingly, like Hogan, Lou fails to disclose or suggest Applicants' claimed alignment bearings.

Carlson fails to compensate for the deficiencies of Hogan and Lou. Notably absent from Carlson is any mention or suggestion of a screw-type damper, or more specifically, alignment bearings. Instead, Carlson is simply relied upon in the Office Action to establish that magnetorheological fluids can substitute for the electrorheological fluids as disclosed by Lou. Thus, the combination of Hogan, Lou, and Carlson still does not teach or suggest all elements of Applicants independent Claims 1, 12, and 21.

Accordingly, Applicants respectfully request withdrawal of the rejection to independent Claims 1, 12, and 21. Given that Claims 3-5, 8, 10, 11, 13, 17, 19, and 20 depend from, and include all the limitation of, their respective base claims, they too are patentable.

Second Claim Rejection Under 35 U.S.C. § 103(a)

Claims 6, 7, 9, 15, 16, and 18 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Hogan in view of Lou and Carlson as applied to Claims 1 and 12 in the First Claim Rejection Under 35 U.S.C. § 103(a) above, and further in view of U.S. Patent No. 5,900,184 to Weiss et al. (hereinafter "Weiss"). Applicants respectfully traverse this rejection.

Claims 6, 7, 9, 15, 16, and 18 depend from, and include all of the features of, their respective base claims. Applicants assert that a *prima facie* case of obviousness has not been established against Applicants independent Claims 1 and 12. Hogan, Lou, and Carlson are discussed above. Weiss, which is generally directed to magnetorheological fluid formulations, fails to compensate for the deficiencies of Hogan, Lou, and Carlson. Weiss makes no mention of any of the features in Applicants' claimed devices. Thus, the cited references fail to teach all elements of the claims.

Accordingly, Applicants respectfully request withdrawal of the rejection to Claims 6, 7, 9, 15, 16, and 18.


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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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